WHAT IS CLAIMED IS:

1. A device for displacing a moving part along a longitudinal axis relative to a housing, said device being symmetrical about a plane extending longitudinally relative to the moving part, the device comprising two structures that are secured to said moving part and elements of active material comprising at least two blocks extending between inside walls of each structure, with the elongation directions of the blocks being antisymmetrical about an axis substantially perpendicular to the displacement axis of the moving part, wherein the structures are flexible and suitable for displacing the moving part by deforming as a function of the elongation of the blocks.

2. A device according to claim 1, wherein each structure comprises a plate extending substantially parallel to the displacement axis of the moving part and oblique pushers integral with the plate, at least one pair of pushers being secured to the moving part at their ends via at least one junction block.

3. A device according to claim 2, wherein each structure includes portions of narrow section between the plate and the oblique pushers, and between the oblique pushers and the junction blocks connected to the moving part, these portions of narrow section being suitable for imparting flexibility to each structure.

4. A device according to claim 1, wherein each structure comprises a plate extending substantially parallel to the displacement axis of the moving part and oblique pushers fitted to said plate, at least one pair of pushers being secured to the moving part at their ends via at least one junction block, the connection between the plate and the pushers and/or the connection between the pushers and the

junction block being a resilient hinge without play constituted by at least one connecting blade.

5. A device according to claim 1, including means suitable for prestressing the displacement means between the plates.

6. A device according to claim 1, wherein the pushers are geometrically antisymmetrical relative to a plane perpendicular to the plates.

7. A device according to claim 6, wherein one junction block is connected to the moving part and the other junction block is fixed relative to the housing external to the structures, the fixed block being secured to a rod coming into abutment against a screw for adjusting the displacement zero position of the moving part.

8. A device according to claim 1, wherein the pushers are geometrically symmetrical about a plane perpendicular to the plates.

9. A device according to claim 8, wherein both junction blocks are connected to the moving part.

10. A device according to claim 1, including at least one diaphragm on either side of the junction blocks, the diaphragms being flexible along the displacement axis of the moving part and stiff transversely relative thereto.

11. A device according to claim 10, wherein the diaphragms are suitable for providing sealing between the moving part and the housing.

12. A device according to claim 11, wherein the housing is filled with a counterpressure liquid.

13. A device according to claim 10, wherein at least one diaphragm includes bellows.

14. A device according to claim 10, including at least one expansion chamber for the filler liquid.

15. A device according to claim 14, wherein each expansion chamber includes a cutout constituting a portion of the wall of the housing, said cutout being connected to the housing by bellows.